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13. ABSTRACT *(Maximum 200 words)*

Work was completed on Lee Wurm's dissertation. This project examined the auditory processing of prefixed English words in order to test competing models. One group of models states that morphologically complex words must be decomposed prior to lexical access, while another states that they need not be. Mixed models have also been proposed. In Experiment 1 potential stimulus items were rated along various continua by approximately 120 subjects. These ratings were used in regression analyses in two subsequent experiments. In Experiments 2-3 recognition performance data were collected using a gating paradigm and a lexical decision paradigm (38 and 110 subjects, respectively). Overall, uniqueness points and frequency measures corresponding to full-form prefixed words were musch better predictors of performance than were measures corresponding to work roots. These results support a continuous processing strategy.

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Several experiments were completed or undertaken during the life of this grant:

Inhibition Project (Wurm, L.H., & Samuel, A.G. Lexical inhibition and attentional allocation during speech perception: Evidence from phoneme monitoring. Journal of Memory and Language [in press].) A total of 303 subjects were run in five phoneme monitoring experiments. This project was a test of the lexical inhibition prediction of the TRACE model of speech perception (McClelland & Elman, 1986). Subjects listened to a list of words and non-words and made speeded phoneme detection responses in Experiments 1 and 2. In Experiments 3-5 they had to monitor a pure tone for frequency modulations in addition to doing the phoneme detection task. We found evidence for the lexical inhibition hypothesized by TRACE, and we found that the inhibition effect interacts with attentional effects in speech perception.

Dissertation. Work was completed on Lee Wurm's dissertation. This project examined the auditory processing of prefixed English words in order to test competing models. One group of models states that morphologically complex words must be decomposed prior to lexical access, while another states that they need not be. Mixed models have also been proposed. In Experiment 1 potential stimulus items were rated along various continua by approximately 120 subjects. These ratings were used in regression analyses in two subsequent experiments. In Experiments 2-3 recognition performance data were collected using a gating paradigm and a lexical decision paradigm (38 and 110 subjects, respectively).

Overall, uniqueness points and frequency measures corresponding to full-form prefixed words were much better predictors of performance than were measures corresponding to word roots. These results support a continuous processing strategy. However, there was also evidence for a decompositional processing strategy. Strip rate interacted with judged prefixedness and semantic transparency. All three of these variables would be irrelevant to the processing system if it were operating on a strictly continuous basis. The manuscript is currently being revised for submission to a journal, and portions of the study will be presented at the 37th annual meeting of the Psychonomic Society (Chicago, October 31 - November 3, 1996).

Additional Projects Completed or in Progress

Wurm, L.H., & Vakoch, D.A. (1996). Dimensions of speech perception: Semantic associations in the affective lexicon. Cognition and Emotion, 10, 409-423.

Lee, Y-S., Vakoch, D.A., & Wurm, L.H. Tone perception in Cantonese and Mandarin: A cross-linguistic comparison. Journal of Psycholinguistic Research (in press).

Vakoch, D.A., & Wurm, L.H. Emotional connotation in speech perception: Semantic associations in the general lexicon. Cognition and Emotion (submitted).

Pollina, D.A., Vakoch, D.A., & Wurm, L.H. Formant structure of vowels spoken during attempted deception. Polygraph (submitted).

Vakoch, D.A., Pollina, D.A., & Wurm, L.H. Vocal correlates of interpersonal issues. (manuscript in preparation).

Lee Wurm, the student supported by the AASERT grant, received satisfactory grades in all of his courses. He was awarded the Ph.D. in Experimental Psychology in August 1996.